

REMARKS

In the Office Action of September 14, 2004, claims 4-7 were allowed, claims 8 and 9 were rejected under 35 U.S.C. §101 as drawn to non-statutory subject matter, and claims 23-26 were rejected under 35 U.S.C. §103(a) as obvious over Chow, United States Patent No. 5,768,171. Claim 10 was indicated to be allowable if rewritten to include the limitations of the claims on which it depended. Claim 1-3 and 11-22 were withdrawn from consideration and have now been cancelled without prejudice.

In response, claim 8 has been rewritten to recite the memory unit of claim 10. Claim 23 has been amended to recite a partitioning circuit for partitioning the input value into a plurality of segments. New claims 27-33 have been added.

With the recitation of a memory unit in claim 8, it is believed to be clear that this claim is drawn to statutory subject matter.

As the Examiner appreciates, the Chow reference does not disclose a system in which the input value is segmented and the look up table is addressed using the segments of the input value. In contrast, applicants' invention uses segmentation to exploit redundancies in certain calculations and thereby reduce memory storage requirements and/or calculation time. Claim 23 has now been amended to recite a partitioning circuit for partitioning the input value into a plurality of segments and the use of such segments in addressing the look-up table. Since the Chow reference does not disclose or suggest any circuits for dividing the input value into segments and then using the segments in addressing the look-up table, claim 23 is patentable over this reference.

Dependent claims 24-26 are believed to be patentable for the same reason claim 23 is patentable.

Claim 27 is similar to amended claim 8 and specifies that the look-up table is located in a memory unit and that one of the segments of the input value is used as an address to the look-up table. These limitations are believed to avoid the rejection under 35 U.S.C. §101 for non-statutory subject matter.

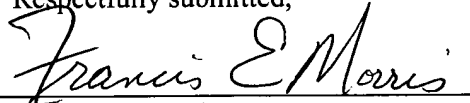
Claims 28 and 29 are means plus function claims related to method claims 8 and 9 and specifying that the look-up table is in a memory unit.

Claim 30 is similar to claim 23 as originally filed but recites the use of a shifter circuit in processing the outputs of the look-up table. Since Chow does not disclose or suggest such circuitry, claim 30 and dependent claims 31-33 are believed to be patentable.

In view of the forgoing remarks, the claims in this application are believed to be in condition for allowance. Such action is respectfully requested. If the Examiner believes a telephone interview would expedite prosecution of this application, he is invited to call applicants' attorney at the number given below.

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Respectfully submitted,



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